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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Choi et al.
App. No.: 09/920,341 GPAU: 2877
Filing Date: 08/01/2001 Examiner: Sang H. Nguyen
Dkt. No.: PA17-07V06 Conf. No.: 4146
For: Methods for High-Precision Gap and Orientation Sensing
Between a Transparent Template and Substrate for Imprint
Lithography

INFORMATION DISCLOSURE STATEMENT

Mail Stop AMENDMENT
Commissioner for Patents
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Sir:

The following information is submitted in compliance with Applicants' duty of disclosure and pursuant to 37 C.F.R. § 1.56, § 1.97 and § 1.98. The undersigned brings the patents, publications, applications or other information identified in the attached:

- ☒ Form(s) PTO/SB/08A and/or PTO/SB/08B or PTO/1449
☐ Other:

to the Examiner's attention in the above-identified application. It is respectfully requested that the cited information be expressly considered during the prosecution of this application, and the references be made of record therein and appear among the "references cited" on any patent to issue therefrom.

This Information Disclosure Statement is being filed:

before the mailing date of a first Office action on the merits or before the mailing date of a first Office action after the filing of a request for continued examination under § 1.114. Therefore, no fee is believed required.

Applicants do not believe that any additional fees are due, but if the Commissioner believes additional fees are due, the Commissioner is hereby authorized to charge any fees which may be required, or credit any overpayment, to Deposit Account Number 502650.

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I hereby certify that this correspondence is being facsimile transmitted to the USPTO or deposited with the United States Postal Service with sufficient postage as either First Class Mail or Express Mail, in an envelope addressed to the Commissioner for Patents.

Signed: Katrina Prati

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Respectfully Submitted,



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Substitute for form 1449A/PTO

Complete if Known**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**

(use as many sheets as necessary)

Sheet

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of

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Application Number	09/920,341
Filing Date	08/01/2001
First Named Inventor	Choi et al.
Group Art Unit	2877
Examiner Name	Sang H. Nguyen
Attorney Docket Number	PA17-07V06

U.S. PATENT DOCUMENTS

Examiner Initials*	Cite No. ¹	U.S. Patent Document		Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number	Kind Code ² (if known)			
	J1	5,425,848		Haisma et al.	6/20/1995	
	J2	6,309,580	B1	Chou	10/30/2001	
	J3	6,391,217	B2	Schaffer et al.	5/21/2002	
	J4	2002/0177319	A1	Chou	11/28/2002	
	J5	6,713,238	B1	Chou et al.	3/30/2004	
	J6	6,518,189	B1	Chou	2/11/2003	
	J7	2004/0192041	A1	Jeong et al.	9/30/2004	
	J8	5,726,548		Chiba et al.	3/10/1998	
	J9	2002/0069525	A1	Hada et al.	6/13/2002	
	J10	5,508,527		Kuroda et al.	4/16/1996	
	J11	5,876,550		Feygin et al.	3/2/1999	
	J12	5,785,918		Hull	7/28/1998	
	J13	5,171,490		Fudim	12/15/1992	
	J14	6,828,244	B2	Chou	12/7/2004	
	J15	6,809,356	B2	Chou	10/26/2004	
	J16	5,737,064		Inoue et al.	4/7/1998	
	J17	2004/0197843	A1	Chou et al.	10/7/2004	
	J18	2004/0156108	A1	Chou et al.	8/12/2004	

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	J19	2004/0137734	A1	Chou et al.	7/15/2004	
	J20	2004/0131718	A1	Chou et al.	7/8/2004	
	J21	2004/0118809	A1	Chou et al.	6/24/2004	
	J22	2004/0046288	A1	Chou	3/11/2004	
	J23	2003/0080472	A1	Chou	5/1/2003	
	J24	2003/0034329	A1	Chou	2/20/2003	
	J25	2002/0042027	A1	Chou et al.	4/11/2002	
	J26	6,636,311	B1	Ina et al.	10/21/2003	
	J27	6,383,888	B1	Stirton	5/7/2002	
	J28	2004/0033515	A1	Cao et al.	2/19/2004	
	J29	2004/0189996	A1	Sreenivasan et al.	9/30/2004	
	J30	6,630,410	B2	Trapp et al.	10/7/2003	
	J31	6,580,172	B2	Mancini et al.	6/17/2003	
	J32	10/670,980		Sreenivasan et al.	9/25/2003	
	J33	10/895,214		Voison	7/20/2004	
	J34	11/000,321		Nimmakayala et al.	11/30/2004	
	J35	4,512,848		Deckman et al.	4/23/1985	
	J36	6,791,669	B2	Poon	9/14/2004	

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		Office 3	Number ⁴	Kind Code ⁵ (if known)				

	J44	WO	2004/016406		Sreenivasan	2/26/2004		
	J45	WO	02/07199		Chou	1/24/2002		
	J46	WO	2004/114016		Chou et al.	12/29/2004		
	J47	WO	99/05724		Chou et al.	2/4/1999		
	J48	WO	03/010289		Chou et al.	2/6/2003		
	J49	WO	03/079416		Chou	9/25/2003		
	J50	WO	03/099536		Chou et al.	12/4/2003		
	J51	WO	2004/013693		Watts	2/12/2004		

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OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No.	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²

	J52	Chou, Nanoimprint Lithography and Lithographically Induced Self-Assembly, MRS Bulletin, pp. 512 - 517, 7/1/2001	
	J53	Colburn et al., Step and Flash Imprint Lithography for sub-100 nm Patterning, Proceedings of SPIE Vol. 3997, pp. 453 - 457, 1/1/2000	
	J54	Johnson et al., Advances in Step and Flash Imprint Lithography, SPIE Microlithography Conference, 2/23/2003	
	J55	Chou et al., Ultrafast and Direct Imprint of Nanostructures in Silicon, Nature, Vol. 417, (June 2002), pp. 835-837, 6/1/2002	
	J56	Chou et al., Nanoimprint Lithography, Journal of Vacuum Science Technology B 14(16), pp. 4129-4133, 11/1/1996	
	J57	Colburn et al., Development and Advantages of Step-and-Flash Lithography, Solid State Technology, 7/1/2001	
	J58	Colburn et al., Characterization and Modeling of Volumetric and Mechanical Properties for Step and Flash Imprint Lithography Photopolymers, Journal of Vacuum Science Technology. Vol b. 19(6), 11/1/2001	
	J59	Bailey et al., Step and Flash Imprint Lithography: Defect Analysis, Journal of Vacuum Science, B 19(6), pp. 2806-2810, 11/1/2001	
	J60	Bailey et al., Step and Flash Imprint Lithography: Template Surface Treatment and Defect Analysis, Journal of Vacuum Science, B 18(6), pp. 3572-3577, 11/1/2000	

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OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS			
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	J61	Wronosky et al., Wafer and Reticle Positioning System for the Extreme Ultraviolet Lithography Engineering Test Stand, Emerging Lithography Technologies, Proceedings of SPIE Vol. 3997, pp. 829-839, 7/1/2000	
	J62	Schneider et al., Stripes of Partially Fluorinated Alkyl Chains: Dipolar Langmuir Monolayers,	

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